

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/634,759 Confirmation No. 6862
Applicant : T. SAKUMA et al
Filed : August 6, 2003
Title : INVENTORY CONTROL SYSTEM, INVENTORY CONTROL
METHOD, FEE COLLECTION METHOD UTILIZED IN
INVENTORY CONTROL SYSTEM, INVENTORY CONTROL
PROGRAM, AND STORAGE MEDIUM
TC/AU : 3627
Examiner : F. Haider
Docket No. : 500.43002X00
Customer No.: 24956

Director of the U.S. Patent Office
Mail Stop Amendment
P.O. Box 1450
Alexandria, VA 22313-1450

PROPOSED AMENDMENT

Sir:

In response to the Office Action of March 4, 2009, please amend the above-identified application as follows. A Petition and fee for a one-month Extension of Time accompany this response.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks / Arguments begin on page __ of this paper.

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Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

1. (currently amended) An inventory control system, comprising:
a server machine having a central processing unit (CPU) and a storage apparatus;
the storage apparatus storing an inventory control program;
the inventory control program being executable by the CPU;
the inventory control program comprising:
demand predicting means for calculating a predicted value of a demand based on past actual demand information;
actual value retrieval means for retrieving an actual value of demand which is compared with the predicted demand value;
predicted remainder calculating means for calculating a predicted remainder which is a difference between the predicted demand value and the actual value;
parameter calculating means for calculating a parameter such as of standard deviation by employing the predicted remainder;
safety stock calculating means for calculating a safety stock based upon said parameter; and
input means for accepting setting or updating of a setting value such as a planning cycle and at least one of a procurement lead time and a plan lead time, and

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wherein the ~~data storage apparatus~~means for storing stores therein₁ in time sequence₁ respective setting values and the actual demand information at every unit time period from a past time to a present time,

wherein upon receipt of updating of a setting value, via the input means, such as ~~the setting value including~~ said planning cycle and at least one of said procurement lead time and said plan lead time, the demand predicting means calculates a planned demand value of a second past time period based on an actual demand value of a first past time period stored in the data storage means,

wherein the actual value retrieval means retrieves and ~~totalizes~~sums actual demand values corresponding to the second past time period stored in the data storage means,

wherein the predicted remainder calculating means calculates a predicted remainder which is a difference between the planned demand value of the second past time period and the actual demand value of the second past time period₁;

wherein a process is performed in which the demand predicting means calculates a planned demand value of a fourth past time period₁ which is different from the second past time period, based on an actual demand value of a third past time period stored in the data storage means₁ which is different from the first past time period, the actual value retrieval means retrieves and ~~totalizes~~sums actual demand values₁ corresponding to the fourth past time period, and the predicted remainder calculating means calculates a predicted remainder from the planned

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demand value of the fourth past time period and the actual demand value of the

fourth past time period to obtain a new sample of the predicted remainder,

wherein the process of calculating a predicted remainder is repeatedly performed for different past time periods until a necessary number of samples of predicted remainders has been obtained,

wherein the parameter calculating means calculates ~~[[a]]~~the parameter of standard deviation based on a plurality of the samples of the predicted remainders obtained by the repeated process of calculating a predicted remainder~~recalculation~~, and

wherein the safety stock calculating means newly calculates a safety stock based upon the parameter ~~including~~of standard deviation and the updated setting value, each time the setting value is updated, to thereby update a current safety stock.

2-19. (canceled).

20. (previously presented) An inventory control system according to claim 1, wherein each of the stored second and fourth past time periods is a time period substantially same as a planned range which is a sum of the planning cycle, the procurement lead time and the plan lead time.

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REMARKS / ARGUMENTS

Claims ____ and ____ remain pending in this application. Claims ____ have been canceled without prejudice or disclaimer. New claims ____ have been added.

Priority

Applicants appreciate the Examiner's acknowledgment of the claim for priority and safe receipt of the priority document.

35 U.S.C. §101

The claims have been amended overcome this rejection.

35 U.S.C. §112

The claims have been amended to remove the phrase "such as". However, regarding item 4 on page 3 of the Office Action, the Examiner refers to language that was previously pending before the Amendment filed on November 12, 2008. The current claims were modified in the Amendment of November 12, 2008 to change the language referred to in this portion of the Office Action.

35 U.S.C. § 103

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Claims 1 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Scheer (U.S. Pub. No. 2002/0161674) in view of Nagata (U.S. Pub. No. 2002/0077979). These rejections are traversed as follows.

Claim 1 specifically recites that a process is performed in which a demand predicting means calculates a planned demand value of a fourth past time period which is different from a second past time period, based on an actual demand value of a third past time period stored in a data storage means...to obtain a new sample of the predicted remainder. Furthermore, claim 1 recites that the process of calculating a predicted remainder is repeatedly performed for different past time periods until a necessary number of samples of predicted remainders has been obtained. Claim 1 also recites that the parameter calculating means calculates the parameter of standard deviation based on a plurality of the samples of the predicted remainders obtained by the repeated process of calculating a predicted remainder, and that the safety stock calculating means newly calculates a safety stock based upon the parameter of standard deviation and the updated setting value, each time the setting value is updated, to thereby update a current safety stock.

This repeated calculation enables the presently claimed invention to more accurately calculate and update the current safety stock. It is submitted that the Examiner cannot take simply take Official Notice of this important feature of the claims. One of ordinary skill in the art would not be motivated to modify Sheer to

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calculate a plurality of predicted remainders in order to calculate the parameter of standard deviation in order to more precisely estimate the current safety stock.

Scheer discloses that a value of demand during a certain period from a present point in time is predicted based on past actual demand information. Sheer does not disclose or suggest calculating a plurality of predicted remainders in order to calculate the parameter of standard deviation in order to more precisely estimate the current safety stock. As mentioned above, the Examiner cannot simply take Official Notice of this feature.

The deficiencies in Scheer are not overcome by resort to Nagata. Nagata discloses a system in which charges in accordance with a use state are charged only to parts having actually been used thereby to prevent excessive cost in advance. The Examiner refers to Fig. 32, however, Fig. 32 shows a data table for product-in-circulation. Fig. 32 is used to specify a signer of a toner cartridge of unique data. The unique data of toner cartridges may be time-sequence data of actual demand from a past time to a present time, but is not a data storing therein a time sequence of respective setting values at every unit time period. As such, it is submitted that the pending claims patentably define the present invention over the cited art.

Conclusion

In view of the foregoing, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

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Respectfully submitted,

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